

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
1 September 2005 (01.09.2005)

PCT

(10) International Publication Number  
**WO 2005/079314 A2**

(51) International Patent Classification: **Not classified**

(21) International Application Number:  
**PCT/US2005/004430**

(22) International Filing Date: 14 February 2005 (14.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/544,402 13 February 2004 (13.02.2004) US

(71) Applicant (for all designated States except US): **PRO-PHARMACEUTICALS, INC.** [US/US]; 189 Wells Avenue, Suite 200, Newton, Massachusetts 02459 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **PLATT, David** [US/US]; 12 Appleton Circle, Newton, Massachusetts 01459 (US). **ZOMER, Eliezer** [US/US]; 374 Kenrick Street, Newton, MA 02458 (US).

(74) Agents: **GAUDET, Stephen, J.** et al.; Perkins, Smith & Cohen, LLP, One Beacon Street, Boston, Massachusetts 01832 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Declarations under Rule 4.17:**

- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations

**Published:**

- without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

**WO 2005/079314 A2**

(54) Title: COMPOSITIONS AND METHODS USED TO TREAT ACNE AND CANDIDA

(57) Abstract: Disclosed herein is a water-soluble chelated complex of a co-polymer of N-acetylglucosamine-glucosamine pyrithione salt (AGP). This composition is characterized by a highly viscose texture with excellent surface properties and extremely long acting antimicrobial activity. AGP's antimicrobial activity against acne bacteria has been found superior to the benzyl peroxide the leading acne medication. In addition, AGP has been proven to be effective against many pathogenic yeast. AGP has the potential to be useful as a long acting broad-spectrum antimicrobial composition in a variety of dermatological medicaments and cosmetics.